The Dangers of Iced-Water.

See page 246.

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HEALTH

A WEEKLY JOURNAL OF

DOMESTIC AND SANITARY SCIENCE.

"Reason's whole pleasure—all the joys of sense—
Lie in three words, HEALTH, PEACE, and COMPETENCE."—*Pope.*

EDITED BY DR. ANDREW WILSON, F.R.S.E. &C.

VOL. XIII.—No. 328. FRIDAY, JULY 19, 1889. [PRICE TWOPENCE.

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I remain, dear Sir,
Yours faithfully,
(Signed) GEORGE HENTY, M.D.

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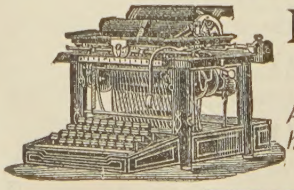

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◆ HEALTH ◆

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, JULY* 19, 1889.

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Notes by the Way

BY THE EDITOR.

"Health is the foundation of all our physical happiness."—*Herder.*

A CASE of professional cramp in a flute-player was described by M. Féré at a recent meeting of the Société de Biologie. The patient was a habitual member of a theatrical company, to whom the flute was the only instrument allotted. He felt at first a paralysis in the extensors of the ring-finger and little finger of each hand, and then a cramp in the opposing muscles, which made him drop the instrument, sometimes with a cry of pain. Local massage and general tonic treatment brought him back again to a condition fit to resume his former work, though those of his audience with a finer ear than the rest could trace the effects of the cramp in the slightly slower time in which the notes played by the ring-finger and little finger were given. M. Brown-Séquard took the opportunity to press the remark that in such cases of professional cramp the fatigue of the whole body was at least an equally essentially component with the local strain. In a case of writer's cramp in a Cincinnati journalist, he had seen both feet as much affected as both hands after an excess of writing.

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FOR some years, says a writer, a decided inclination has been apparent all over the country to give up the use of whisky and other strong alcohols, using as a substitute beer and other compounds, This is evidently founded on the idea that beer is not harmful, and contains a large amount of nutriment; also, that bitters may have some medical quality which will neutralize the alcohol which it conceals, &c. These theories are without confirmation in the observation of physicians. The excessive use of beer is found to produce a species of degeneration of all the organs, profound and deceptive fatty deposits, diminished circulation, conditions of congestion, and perversion of functional activities; local inflammations of both liver and kidneys are constantly present.

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INTELLECTUALLY a stupor amounting almost to paralysis arrests the reason, changing all the higher faculties into a mere animalism, sensual, selfish, sluggish, varied only with paroxysms of anger that are senseless and brutal. In appearance the beer-drinker in excess may be the picture of health, but in reality he is most incapable of resisting disease. A slight injury, a severe cold, or a shock to the body or mind, will commonly provoke acute disease (well seen in brewer's draymen), ending fatally. Compared with inebriates who use different kinds of alcohol, he is more incurable and more generally diseased. The excessive use of beer every day gives the system no recuperation, but steadily lowers the vital forces. The most dangerous class of ruffians in our large cities are held to be excessive beer-drinkers.

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DR. W. JUNKER, the African traveller, makes the following remarks on making coffee in his recent work *Reisen in Afrika:* Any European who believed that the decoction of coffee-beans which he had tasted at home deserved the name of "coffee," is soon convinced of his error after sojourning for a while in Turkey, Egypt, or Arabia. He will, indeed, at first be somewhat surprised always to find some sediment in his cup, which he is apt to overlook until he has swallowed some. But he will soon learn to sip the aromatic liquid from off the sediment. . . The proper way to prepare coffee is as follows: The beans, which should, of course, if possible, be of the very best quality (genuine Mokka), are carefully examined, and all damaged ones picked out, constituting then what is known as *el-búnn es-ssafi*.

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IMMEDIATELY before use, the requisite quantity is freshly roasted and powdered, which latter is preferably done in a wooden mortar. The powder should be quite fine, like

CANCEROUS DISEASES.

TESTIMONIALS.

The following is from Dr. John Sheerer, St. Albans, Sept. 5th, 1888.

MR. JOHN M. YOUNG, *Manager Missisquoi Mineral Springs.*

DEAR SIR,—My mother, Mrs. Susan Sheerer, of Virgil, Cortland County, N.Y., was pronounced by Dr. Brunson, of said town, to have had a cancer in her breast in 1866. She used two cases of Missisquoi Water, and was cured. She is now eighty-two years old, and in splendid health. Yours truly,

JOHN SHEERER.

MISSISQUOI SPRINGS.

An Extract from "The Monthly Homœopathic Review," May 1st, 1870.]

By Dr. TUTHILL MASSY.

The Missisquoi Springs of Franklin, County Vermont, are at present rather requently prescribed in England for diseases where the knife was the severe medicine of other days: I therefore deem it my duty to lay before your readers the experience which I have gathered relative to these Springs.

* * * * * * * *

The Spring A, Missisquoi Springs, is the one most generally exported, and which I have frequently prescribed. It gave great comfort to a lady who was suffered from a large open cancer in the right breast; cleansed the surface, relieved the pain, induced sleep, and diminished the tendency to bleeding, when applied externally, like simple water dressing, and taken in half-tumbler doses twice a day.

The benefits of the Spring A were very remarkable in a lady burdened with an ovarian tumour containing much water, with considerable abdominal tenderness. A few bottles always reduced her great size, and relieved her mind from the dread of an operation which was once proposed.

PAMPHLET on application to the Sole Importers—

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AND OF ALL CHEMISTS.

flour. Water having been brought to the boil in a suitable kettle or vessel, a certain quantity of the powder—a small spoonful for every small cupful of coffee to be drawn from the vessel—is added, the whole stirred, and the vessel replaced on the fire until the liquid boils and foams up. It is then removed, and the coffee served.

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INVALIDS, says the *Lancet*, and even more robust residents, on the Riviera Levante, as the Italian seaboard from Genoa to Spezia is called, are sometimes unpleasantly conscious of sand-laden winds, which make respiration anything but agreeable. These, in the spring especially, from April to the middle of May, often end in veritable showers of sand, covering the foliage of trees, the roofs and terraces of houses, and, indeed, all exposed surfaces, with a thin stratum of finely pulverized, dessicated earth. The Padre Denza, of the Royal Observatory of Moncalieri, near Turin, one of the most distinguished meteorologists in Europe, has bestowed much attention on this phenomenon, which he traces to storms in the Grand Sahara stirring up the sand, which is carried thence on atmospheric waves of low pressure across the Mediterranean to the European, and notably to the Italian, shores.

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ON May 12th, according to his recent report, a violent tempest raged over the northern surface of the African Desert, as was announced at his Observatory by telegrams from Biskra. This, advancing towards Italy, brought heavy rains and strong gales into the Alta Italia (Upper Italy), and therewith a fall of sand much denser than those which had been observed between the 8th and 10th. This fall was at its maximum on the night between the 14th and 15th, and extended from the Ligurian Apennine over Novi and Tortona to Milan, and even beyond it, covering with a fine coating the leaves of the trees, the house-roofs and terraces, and the marble statues in the public squares. Quantities of this African sand were collected by the Padre Denza himself and by the directors of the other observatories in the Alta Italia. The phenomenon, until explained by the Padre, was popularly ascribed to the *luna rossa* (red moon) of April, which still figures as the cause of it in the weather forecasts of the catchpenny almanacs of Southern Europe.

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SEVERAL correspondents write to ask if I have noticed the statements recently published regarding Dr. Brown-Séquard's views as to the possibility of renewing our youth by physiological and chemical means. In reply to these queries, I may quote what a medical journal aptly says of the views in question:—On two occasions this month Dr. Brown-Séquard has made communications of a most extraordinary nature to the Société de Biologie of Paris. The statements he made—which have unfortunately attracted a good deal of attention in the public press—recall the wild imaginings of mediæval philosophers in search of an *elixir vitæ*. He obtained by compression and washing from certain parts of young animals a fluid, which he injected into the skin by aid of a hypodermic syringe. He performed the experiment on himself, repeating the injection almost every day for a fortnight, with results which appeared to him to warrant an immediate communication to the Society. He stated that he had experienced a rejuvenescence of all his forces, physical and psychic. All that had become difficult or impossible for him, owing to advancing age, became once more easy, and he found himself possessed of the same vigour as he had had thirty years before. He could undergo fatigue in standing, travelling, and in intellectual labour previously impossible. MM. Féré and Dumontpallier, in commenting on M. Brown-Séquard's statements, observed that they would require to be rigidly tested and fully confirmed by other self-experiments before they were likely to meet with general acceptance; and in this opinion, wisely adds the journal from which I quote, we fully concur.

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A PAPER by Miss Etta Johnstone and Professor Thomas Carnelly, on the "Effect of Floor-deafening on the Sanitary Condition of Dwelling-houses," has lately been published in the *Proceedings of the Royal Society*. The deafening material is supposed to consist of a mixture of coarse mortar and smith's ashes; and is said not only to arrest the conduction of sound from room to room, but also to prevent the transmission of odours in the same direction. The paper shows by chemical analysis that deafening material often contains dangerous substances, probably derived from ashpits, &c., which sometimes lead to development of fœtor, instead of preventing its diffusion. Determinations of (1) moisture, (2) total combustible matter, (3) chlorine, and (4) nitrogen in the material taken from numerous houses, showed that, whilst the stuff used in the better class of houses was of unobjectionable quality, that which was employed in poor neighbourhoods is often extremely impure. The results obtained have a general tendency to confirm those obtained by Dr. Emmerich, of Leipzig, who found that, after the floors of rooms have been washed, putrefaction products are found in the air, and explained this fact by the penetration of water through chinks between the boards into the filth below.

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I OBSERVE that the value of the kola nut (seeds of *Sterculia acuminata*), recently referred to in HEALTH, No. 322, as a dietetic and therapeutic agent has been recently tested by Surgeon R. H. Firth. These nuts are allied in composition to cocoa, coffee, and tea, but contain a relatively large amount of caffeine. The properties ordinarily assigned to kola are those of a strong tonic and stimulant to the nervous system, counteracting and removing the sense of exhaustion after fasting and fatigue; it has also been credited with having an antagonistic action to alcohol, and it has been said to purify water. From his observations Surgeon Firth concludes that kola is in no sense a food; that it increases the total urinary excretions, with a slight reduction of the total solids and a marked reduction of the extractive; that it has a peculiar stimulant action on the nervous system, temporarily strengthens the heart beat, and increases the arterial tension.

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IN times of exertion and fasting it wards of the sense of mental and physical depression and exhaustion. As a therapeutic agent in convalescence, and as an antagonist to alcoholic sequelæ, kola has not yielded any positive results in Surgeon Firth's hands. For the purification of water it does not appear to be superior to other mucilaginous seeds, its action being purely mechanical. In this report due prominence is given to the importance of separating seeds which contain no caffeine, such as *Garcina* kola and *Sterculia cordifolia*, as these would speedily discredit the employment of kola by the troops under conditions when it might possibly be of service. It appears that an infusion, from its astringent action, might be used for those suffering from diarrhœa. Dr. Firth's views, in respect that kola nut is not a true food, agree substantially with those expressed in these pages.

Original Essays

"Life is not to live, but to be well."—*Martial.*

GYMNASTICS IN RELATION TO HEALTH.

By Ellen F. White.

"Gymnastik Director" of the Royal Gymnastic Institute of Stockholm.

SIXTH AND LAST PAPER.

In the last number I spoke of passive and active movements. Besides these two, there is a large class of exercises holding a middle place between them, and partaking of the nature of both. The position may be an active one, that is to say, the patient has to hold himself up in a certain position, whether standing, sitting, or kneeling, whilst the operator gives him some passive movement, such as spinal percussion or "heart vibrations." In other cases the patient may have to keep body, arm, or leg, from collapsing, whilst the operator moves the patient's head, trunk, or limbs freely. It takes some persons a long time to learn to remain perfectly passive under movement. The almost irresistible impulse is to resist or to try to "help" the movement. Both these impulses must be detected and checked.

An active exercise almost always follows a passive one. Passive rotatory movements act strongly on the circulation; the alternate contraction and expansion of the blood-vessels causing suction, and thus increasing the flow of the blood. In the active movements the circulation is further aided by the contraction of the muscular fibres, which compresses the veins, so that the blood, being unable to flow backwards on account of the valves in their walls, is impelled forwards towards the heart. Some patients are too weak to attempt active movements, being able to bear only the most gentle strokings and vibrations. In these cases the gymnast shows his skill in knowing when to hold his hand; for a slight overexertion on the part of the patient may undo the careful work of days or weeks. That no visible improvement takes place during the first two or three weeks is no reason for discontinuing the treatment. A lady came to our gymnasium once in a great state of nervous excitability and weakness. The number of people about her worried her; and it took very little to set her off crying. She did not at all like coming to the gymnasium; but she was persuaded to persevere, and with most favourable results. When I left Sweden she had grown bright and cheerful with renewed health. Cure by gymnastics is very slow in many cases; but the results are usually lasting. The whole system is not only purged from the disease, but strengthened against future attacks.

Many who would be otherwise helpless invalids are so far kept in health by a continued course of medical gymnastics that they are enabled to carry on their daily work in comparative comfort. This is noticeably the case in affections of the heart. The distressing symptoms of these painful and too often quite incurable maladies are greatly lessened by judicious treatment. In Sweden, medical gymnastics are the only recognized method of treating these cases. The treatment for heart disease consists chiefly in passive movements, with some gentle active exercises for the under arm and hand, the lower part of the leg and foot. The object of these is to relieve the stagnant circulation in the region of the heart by drawing it gently off to other parts. Means are also used to improve the breathing powers, for the better oxidization of the blood.

Mental cases are now being experimented on with regard to the applicability of medical gymnastics. But this branch is at present in its infancy; the success of the treatment depending on how far the cause of the disease can be ascertained and attacked.

When deformity arises from the contraction of the muscles on one side, as in cases of curvature of the spine, the object of the treatment is to strengthen the muscles of the other side, to increase their contractile power so that they may counterbalance the contracted muscles. Thus, movements for these complaints are chiefly of an active character; and in cases where the mischief is taken in time, a month or six weeks is often enough to set things right again. If the mischief have already increased to a double curvature, and if the shape of the thorax be much changed, the treatment, of course, is longer. The older the patient, and the longer the deformity has been neglected, the more difficulties there are in the cure; but in the worst cases the general health can be much improved, and the disturbance caused in the vital functions by abnormal pressure arising from the changed position of the thorax may be removed.

Acute cases of fever and inflammation are sometimes treated by specialists. This is a branch of the subject needing much research and experiment; but I may say, in passing, that I have seen many a cold in the head checked in its first stage by percussion applied to the forehead and root of the nose, and I have again and again cured headaches. But if the headaches are chronic, the local treatment alone will not prevent their recurrence. To ensure a permanent cure in such cases the original cause must be attacked. In all cases the sooner the treatment is resorted to the greater the chance of a successful cure. Many do not derive the benefit they might because as soon as they begin to feel better they think that enough has been done. These cases of a partial cure are always subject to relapse; whereas with a little longer perseverance the cure might have been permanent. As with educational, so with medical gymnastics—the treatment alone is not sufficient if the daily habit of life be not conformed to a sound rule. It would be useless to treat a patient for a chronic indigestion if the patient disregarded all rules of diet, and insisted on eating and drinking indiscriminately. It may be that some external cause affects the health. Professor Georgii, in his *Kinetic Jottings*, quotes from the *Lancet*:—"Pains in the larynx and hoarseness of voice may be occasioned by reading aloud, and preaching with the head bending over the desk or manuscript. Cases of this kind—for example, clergymen's throats—are of frequent occurrence. They are not amenable to remedies, but they speedily cease on avoiding the existing cause." Long standing "scrivener's palsy" is hard to cure; but, in addition to massage, active movements for the extensors of the hand are used, the flexors (the muscles which close the hand) being left in a passive state.

Varicose veins are frequently caused by tight garters. They are also caused by the pressure of the thigh on the sharp edge of a seat. This disease is treated by active movements, which tend to draw away the blood from the swollen veins, and also by vibratory movements, with gentle rubbing around the affected parts. I have seen two cases of hip disease treated with good results. In both cases the crutches were laid aside by the end of the month, the patients getting about with one stick, and in the gymnasium they had to practise walking without any assistance. One of these patients was a boy twelve

years old. The abscesses were still open when the treatment was begun. This consisted of very gentle rubbings around the affected parts, followed by passive movements, rotations, bendings, and stretchings. As strength returned, these were followed in their turn by more and more active exercises; besides which, he was encouraged to walk across the room without any assistance. This the child did, though not very readily. Many doctors do not approve of this treatment for hip disease; but I see no reason why it should not be used when such good results may be obtained.

Obstinate constipation is most successfully treated. Exercises are given to strengthen the abdominal muscles, and through them to react on the intestines. Passive movements, such as massage and kneadings, with thigh rotations, are also used. A Swedish professor of anatomy calls gymnastics the only true stomachic we possess, thus showing the high estimation in which this treatment is held in Sweden. Diarrhœa can also be stopped, not by kneadings, but by a vibratory movement across the lower part of the abdomen. This movement is absorptive in its action, and tends to check the too rapid peristaltic movement of the intestines. This is a point which might have some important bearings on the treatment of cholera and dysentery in their early stages.

Although there are so many who take up massage now in England, the number is comparatively few of those who can carry out the system of medical gymnastics, and these few are mostly Swedes. It is certain that Ling's system has a great future before it, if properly introduced by well-trained practitioners. This, however, must necessarily depend on the medical faculty, who should see that those they employ are properly trained and certificated.

It is difficult to make people understand that massage is only one part of medical gymnastics; and though the massage is invaluable in certain cases, yet it requires to be supplemented by well-chosen movements, both active and passive.

Every facility is afforded to visitors at the Royal Institute in Stockholm for seeing the work which is undertaken there. The professors mostly speak English, and they spare no pains to explain what is done. The Institute opens about the middle of September for the treatment of patients; and the busiest time is after the Christmas festivities till Easter. But, unfortunately, winter is not the time for visiting Sweden, even if it were the time for a professional man to take his holiday; and the Institute closes towards the end of May. Most of the gymnasts then hurry away to carry on their work in one or other of the many summer watering-places scattered throughout the land. It is a very common thing for a private family to take a lady gymnast into their home for the summer vacation. She gives a certain time each day to the treatment of those in the house requiring her care, and for the rest of the day she shares in the employments and amusements of the family. When I was at the Institute many of my comrades did this during the vacation ending our first year of study. But this is now forbidden; for according to the new laws none are allowed to practise without a certificate and a letter of permission from the Medical Directory. This law was passed for the purpose of preventing untrained workmen.

The Institute is under the control of the Government. The number of pupils is limited. The men are mostly military cadets who take up the military drill, and under certain conditions they also go through the educational and medical departments. At present, but comparatively few medical men have gone through the medical course, but their numbers are on the increase. The women's course is for two years. The age varies from twenty to thirty, and only twenty Swedes and three or four foreigners are admitted. These last are usually representatives from the other northern races—as Norwegian or Dane, a Finn or a Russian, with now and then a German. No French or other Latin race has ever been represented in the women's course. I am not sure if the facts of the case are the same as regards the men of these countries. No Englishman has ever been through the whole course, though some have been to see, and some may have stayed for five or six months.

It is, to me, very surprising that with such a perfect system of gymnastics, based on the profoundest physiological laws, and so admirably adapted to the preservation of health as well as to the cure of disease, that the laws of a healthy life are generally so little understood. Lessons in health form part of the scheme of instruction. After one of these lessons, which had treated of the advantages of a daily ablution, I overheard one girl express great astonishment that such a thing should be demanded of them; adding that she had not time for a daily bath. Certainly her muddy complexion bore out her words. There were, however, many exceptions to this.

In the winter double windows are put in, and the chinks pasted round with paper, one little square being left to open. On one occasion I had to sleep in a room where the whole window was pasted up. It is little wonder that as the winter goes on complexions should get pasty and pale, and digestions out of order, and headaches frequent. It is a fortunate thing for the Swedes that they have such an important means of restoration to health ready to hand, which can be resorted to without difficulty. Private gymnasts and public institutes abound, at any rate in Stockholm, and patients can choose their gymnast as they do their doctor.

There will be great scope for this work in England as soon as the hospitals, the medical men, and the suffering public awake to the fact that exercise in skilled hands may be as potent as drugs, though, like them, they may do an immense amount of harm if employed without the requisite knowledge and skill.

Lead-Poisoning. — Several cases of lead-poisoning, caused by the preparation of home-made wine in earthenware dishes coated with litharge glazing (oxide of lead) have recently been noted in the *Lancet*. The symptoms were the appearance of a bluish line around the gums, vomiting of bile in large quantities, obstinate constipation, and constant abdominal pains. On analysis of some cherry-wine, from the use of which one of the cases had arisen, lead, in the form of sulphate, was found in very dangerous proportions.

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Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

OUR HEARTS.

Normally a man's heart is as big as his fist, and the work this small organ accomplishes is enormous. By night and by day, through all the years of life, it can never stop its activity for a moment without death to its owner. What wonder that it has been considered the seat of life!—what wonder that any trouble with it fills the soul with dismay!

The heart is the propelling agent of the blood in the animal body, and is situated in the thorax or chest-cavity of vertebrated animals. From this organ the primary arteries arise, and in it the main veins terminate. By its alternate dilatation and contraction the circulation is carried on, the blood being received from the veins and returned through the arteries. In man, quadrupeds, and birds, the heart consists of four chambers; reptiles and amphibians have a three-chambered heart, whilst most fishes have two chambers only.

Regarded as the seat of the mental faculties or capacities, or some one or other or combination of them, it stands for (*a*) the mind, the soul; (*b*) the seat of the affections and passions; (*c*) the seat of the will or inclination; and (*d*) conscience. "Every man's *heart* and conscience doth in good or evil, even secretly committed, and known to none but itself, either like or disallow itself."—*Hooker.*

Primarily, the heart is subject to two kinds of affections, functional and organic. Functional derangements are produced by dyspepsia, or bad stomachs, for example, and may disappear as the dyspepsia is cured. Organic disease is where the structure of the heart is materially impaired. It is this kind of disease which sometimes causes sudden death, though by far the larger number thus affected succumb gradually. It may be borne in mind, however, that a crippled heart, like a crippled limb, would often do its work as long as ever if not overtaxed. Those who perform great manual labour, as well as those subjected through years to extreme worry, are most subject to heart disease. Heredity also plays its part.

It is a strange thing that those who suffer from palpitation seldom have a cardiac or heart failure, but dyspepsia. Many a doctor has gained a reputation for treating heart disease when he only treated the stomach. There seems to be nothing which sooner deranges a normal heart than the retention in the system of products which should be excreted; also it seems impossible to regulate an unsteady heart until the bowels, liver, and kidneys have been made to work freely. A good amount of water between meals is a desideratum. Pepsin Tabloids should be taken, and five drops of the tincture of nux vomica in a wineglass of water three times daily.

Most people have heard of *angina pectoris*, that dire affection of which Dr. Arnold, the well-known rector of Rugby, and John Hunter, the famous surgeon, died. In this disease it seems as if the heart were being screwed down in an iron vice, and an awful sense of impending death comes on. In this disease a Trinitrine Tabloid will afford relief at once, and in a short time, if taken regularly, the drug will effect a cure.

Perhaps there is no more pitiable sight than to see a man or woman swollen to double their size, and who have not been able to lie down for weeks. This is a common thing in heart disease, and to Professor Fraser, of Edinburgh University, we owe a debt of gratitude for having given us a remedy which very often does good after the first dose.

That remedy is Strophanthus, which should be taken, under medical advice, in tabloids. Its curative action is marvellous.

In weak conditions of the heart generally, either alone or as an adjunct to other treatment, dialyzed iron is a drug whose utility is as certain as the preparation is bland and restorative.

THE HAIR.

IV.

It has not by any means always been a custom for men to wear the hair short. The ancient Gauls had such pride in their heads of long hair as has the American Indian in his, or the Chinaman in his queue. When Julius Cæsar conquered the Britons, he compelled them, as a token of submission, to cut off their hair. Gregory of Tours tells us that for a long time it was a privilege enjoyed by kings only to wear the hair of great length, and in the early days of France to cut it short on one of the Royal Family was to exclude him from the right of succession. Long hair has been looked upon by the multitude as a vanity. When the monks forsook the world for the cloisters their heads were shorn; and, finally, the world of Christians may have regarded the fashion of wearing the hair long as unbecoming their profession, and so wore it short. The early Roman men seem to have had short hair, as their medals show. We can understand that the daily toil of the masses must render it convenient and healthy for the hair to be short. Ossian, in his poems, alludes to the length and beauty of the Briton's hair. We read of those in former days, condemned to be beheaded, who were anxious to preserve their hair. Shelley, in "The Cenci," pictures Beatrice pausing to make her last brief toilet at the foot of the scaffold:—

"Here, mother, tie
My girdle for me, and bind up this hair
In any simple knot. Ay, that does well;
And yours, I see, is coming down. How often
Have we done this for one another! Now
We shall not do it any more."

The ancient Roman ladies bestowed great care and much time on their hair, adorning it with precious jewels. After the Britons came the Anglo-Saxons and Danes, who were equally punctilious in the care of the hair; and it is said that the greatest disgrace that could befall a woman in those days was to have her hair cut short—an ordeal oft inflicted as a penalty for her infidelity. Morris says:—"The Danish officers quartered on the English in the reign of Edgar the Peaceable and Ethelred the Unready, who were the heroes of those times, captivated the ladies by the extreme beauty of their hair."

The length of the hair varies greatly in different people. Perhaps thirty inches is about the average. Catlin tells of an American Crow Indian whose hair was ten feet seven inches, and women with hair reaching to their feet are met with now and then. We have most of us heard of the worthy burgomaster of a Dutch village whose beard was so long that in too rapidly ascending some stairs he tripped upon it and broke his neck. An instance is recorded of an American farmer whose beard was six feet long.

A practical point may here be urged about brushing the hair. One often hears the old saying, "One cannot

brush the head too much or the hair too little." But this adage should be taken *cum grano salis*. "One is apt to forget," says Dr. Jamieson, "that the scurf forms faster than ever when roughly scraped off," and warns against using a hard brush, which breaks and bruises the hair. "Use, then, a short, soft brush, and use it gently: wash the head once a week or fortnightly, if not habitually daily. The teeth of the comb should never have sharp points, as this tears the hair. A small tooth comb should never be used, it does more harm than a hard brush, when employed to get rid of dandruff or scurf." We have already pointed out in a previous article that the soap or the skin and hair should be one that is superfatted, and that cannot injure the tissues by drying them. Such a toilet article is "Vinolia" Soap, and we may also add that for the complexion the "Vinolia" Cream itself is unrivalled.

So CLEAN.—Mr. W. H. Lever writes: "I was not a little surprised to read the letter from Mr. Frith, R.A., complaining that his picture exhibited in this year's Royal Academy, and purchased by myself, should be used by my firm as an advertisement for 'Sunlight Soap.' Would Mr. Frith kindly say in which way I have unintentionally injured him in so doing? Pictures have been used for advertising ever since advertising was known, and the very fact that in the latter half of the nineteenth century advertisers are seeking the works of our best artists, making thereby their advertisements more attractive, is a change that many lovers of art will consider an advance on the old style of advertising. Surely the use of a picture in this way cannot detract from the reputation of the artist, but rather the reverse, because his picture will be admired by and give pleasure to millions who otherwise could never have seen it."

ADVANCE OF SANITATION.—A novel system of house-drainage was recently inspected by a number of scientific gentlemen and others interested in sanitation at 5, Queen's-gate, S.W. Mr. Roland Plumbe, F.R.I.B.A., the architect, explained the arrangements he had carried out for Dr. Wakley, the owner of the house. Cast-iron socketed pipes, coated with Dr. Angus Smith's solution, caulked with molten lead and laid on a bed of concrete, are provided. All soil-pipes go direct into the drains, all other pipes being discharged over Doulton's trapped gulleys. The drains are carried through glazed channels, and there are three manholes where the pipes join. Owing to the necessity of placing the pipes down the passage, these manholes had to be inside, but in other cases they would be outside. To prevent any smell arising, Brood's air-tight manhole covers, with stone frames, are first fixed in the manholes, then seven inches of prepared silver sand pressed down, and over these are fixed Phillip's Bronte's patent cast-iron air-tight frames and flaps. At the end of the drain a fifteen-gallon combined grease tap and automatic flushing tank is provided, by which means the drain will be flushed every time the kitchen sink is used. The w.c.'s are Dent and Hellyer's "Optimus," with distinct water supply, each having a separate ventilating pipe. The scientific gentlemen present gave it as their opinion that it was the most complete system of sanitation in existence.

CHEMICAL ANALYSIS.—DR. DRINKWATER, Lecturer on Chemistry in the Edinburgh Medical School, undertakes the Analysis of Water, Foods, Wall-Papers, and of all other products and articles connected with Household Health and Commercial Interests. Terms on application to Dr. Drinkwater, Chemical Laboratory, 41, Chambers-street, Edinburgh.

The Family Circle

"The child is father of the man."—*Wordsworth.*
"In bringing up a child, think of its old age."—*Joubert.*

THE DANGERS OF ICED-WATER.

BY WILLIAM A. HAMMOND,
Surgeon-General of the United States Army, retired.

"THERE is death in the pot," said Mr. Accum to the people of England, in his diatribe against dram-drinking. The words fell with startling force upon those in high and low places, and set up a train of inquiry which nothing but some short and terrible invective like his could have excited. Artists and manufacturers took up his idea and reproduced it on canvas and in almost every plastic material used for decoration or domestic purposes. Preachers announced it from their pulpits and drew fearful pictures of its appositeness; and, if we are to believe the assertions made at the time, many habitual drunkards were saved from a wretched life and a still more wretched death by being frightened into sobriety. Arguments would have been useless with such people, but a grinning skull looking over the edge of a wineglass, or a skeleton clasping a decanter in his bony hands, or a snake coiled around the stem of a goblet caused them to pause as they grasped the poisoned chalice, and to shrink back in terror as they dashed the death-giving vessel to the ground. Many Englishmen renounced their gin and took to tea instead, being further told that it was the "cup that cheers, but not inebriates."

The notion seems to be prevalent that, in order more effectually to reform a drunkard, his stomach must be drenched with water, and especially ice-water. This idea originated in the United States, and has gradually spread to Great Britain and Ireland and their dependencies. The result is that "cold-water brigades" and "ice-water brigades" have been formed in almost every country where the English language is spoken. Tea-drinking, which received so great an impetus from Mr. Accum's expressive words, is rapidly giving way before ice-water drinking. Philanthropic individuals combine and raise money to establish ice-water fountains in the most populous parts of our large cities, and the people are told to shun the liquor-saloon and the beer-cellar and to quaff the refreshing liquid that nature supplies. These good people forget that the ice they put into the water, to make it, as they suppose, more fit for the wants of the human system, is their act and not nature's. I have heard of one repentant distiller who on his death-bed, thinking thereby to atone for the destruction to those who had imbibed his whisky, appended a codicil to his will, by which a considerable sum of money was set apart, the income of which was to be for ever devoted to supplying ice-water to all who should apply at the tail of a cart that was to be especially fitted up for the purpose and to be driven through the streets. Probably more were killed by his whisky than by his ice-water, but that the latter had its victims there can be no doubt.

It is certainly true that more ice-water is drunk in the United States in one year than in all the rest of the world in ten. This fact is in part due to the facility with which ice can be obtained, and the comparatively low price at which it is sold; but our national craving for ice-water cannot be altogether the result of its cheapness, for we find that in Norway and Sweden, and in the high

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regions of India, South America, and Switzerland, ice-water as a beverage is almost unknown. Certainly, so far as the appetite is concerned, it is the result of education. Young children, or adults not accustomed to drinking ice-water, find it at first not only unpleasant, but positively painful. Infants shudder when it is first put into their mouths, and I have seen American Indians spit and squirm for several minutes after they had been induced to drink a tumbler of ice-cold water; but persistency in this, as in most other matters of food or drink, almost invariably conquers, just as it does with tobacco or alcohol and many other things, which, originally being repulsive, finally become almost indispensable to the comfort or the factitious demands of the system. There must be something inherent in the American organism which prompts to the formation of the habit, just as there is an inborn tendency in us to indulge in the use of "chewing-gum," hot sodden bread, and indigestible pies. If the proclivity were an innocent one, there would not be much to say against it: that it is extremely harmful is not a matter for doubt.

In the first place, it may cause sudden death, especially if indulged in when the body is overheated. A very important part of the nervous system, called the solar plexus, is situated immediately behind the stomach. A severe blow inflicted on the body just over this part of the sympathetic system of nerves will cause death with as great rapidity as will a stab in the heart. Many a so-called man has killed his wife by kicking her in the stomach. It is not the injury to this organ of digestion that produces instantaneous death, but the shock which is given to the solar plexus, and through it to the heart. A big drink of ice-water reduces the temperature of the solar plexus so suddenly that the action of the heart is greatly lessened; sometimes to so great an extent as to cause instant death. It is quite common for persons to feel faint and to become pale immediately after drinking a glass of ice-water. They attribute these effects to the heat or over-exertion, or to some other cause which has nothing to do with the result, not knowing that they have so weakened the heart as to prevent its sending a due amount of blood to the lungs and brain, and that, had the water been a little colder, life would possibly have been extinguished altogether. Direct experiment with instruments especially devised for the purpose of measuring the force of the heart's pulsations establish the fact that there is no agent of the materia medica more powerful with some persons as a depressant of this organ than a large draught of ice-water. Under certain circumstances it acts with all the force and rapidity of prussic acid.

The people who do the most harm in this direction, in this age and country of ice-water drinking, are the keepers of the so-called mineral-water fountains. Most of them, I am sorry to say, are druggists and chemists who ought to know better. It seems to be the chief object of these vendors of frigid drinks to cool them down to the lowest possible point consistent with fluidity. As these waters generally contain some saline ingredients, they can be reduced below the freezing-point of ordinary water without congealing. It appears from the signs that they display in front of their places of business that the colder they can make these mixtures the more pride they take in themselves and the more customers flock to their shops. Many deaths of persons have occurred while in the very act of drinking these more than ice-cold liquids, and I am, myself, conversant with numerous cases in which great mental and physical prostration was the result, and from which recovery did not take place for several days. In two of these instances obstinate facial neuralgia, lasting over a year and only yielding to energetic medical treatment and complete change of climate, was induced.

Besides being one of the most prolific causes of neuralgic affections, very cold drinks injure the teeth. They crack the enamel, and therefore increase their liability to decay. Americans, as a nation, have worse teeth than any other people in the world, and this fact is due more to the excessive use of ice-water than to any other cause. In the old days of slavery the negroes of the South were remarkable for their good teeth, for ice-water was a drink unknown to them. But with freedom, and more money at their disposal than they formerly had, they have taken to tippling the icy liquid, and, as a consequence, bad teeth are now frequently seen among them.

A person who drinks a great deal of ice-water at meals very materially lessens his ability to enjoy the good things of the table, for the sense of taste is greatly impaired when the temperature of the inside of the mouth is reduced many degrees below the normal standard. Indeed, a very excellent method of counteracting the offensive taste of certain medicines is for the one who is about to swallow them to hold a little ice-water in the mouth for a few moments. The nauseous dose can then be gulped down without a tenth part of its offensiveness being experienced. On the other hand, the delicate flavours of the finest wines are entirely lost to the person who has before drinking them taken a glass of ice-water.

The effect upon the stomach of ice-water drinking is no less marked. As soon as the cold liquid reaches this organ, the blood-vessels which are enlarged during the process of digestion, in order that a due amount of gastric juice may be secreted, are at once contracted, and the function is accordingly more or less completely arrested. Confirmed dyspepsia is a necessary consequence, and this frequently assumes the form of a gastric catarrh, than which few disorders are more intractable. Nor does the morbid action cease here. Many a case of obstinate diarrhœa owes its origin to the refrigeration of the sympathetic ganglia of the abdomen induced by ice-water. There is some reason to believe that cancer of the stomach, a disease certainly more frequent among Americans than other people, is likewise one of its consequences.

It has been asserted by some medical writers that excessive ice-water drinking is a prolific cause of Bright's disease of the kidneys. There does not seem, however, as yet, to be sufficient evidence to support this view, but it is, nevertheless, quite possible that it is not altogether unfounded. Judging by analogy, and by what we know of the effects of ice-water upon other internal organs, I see no reason to doubt that the kidneys may also be brought under its morbid influence. So long as there is a reasonable doubt upon the subject, it would seem to be prudent for those who are predisposed to kidney disease to drink water considerably above the temperature of thirty-two degrees.

Water for drinking purposes should never be below fifty degrees. We can always get it, even in the hottest weather, as cool as this by letting it run for a minute or two from any household faucet, or drawing it from any country well. If not, there is no objection to cooling it to the point mentioned. The East India "monkey," which can now be had almost anywhere in this country, and by means of which the contained water is cooled by its own evaporation, answers the purpose admirably. I am quite sure that, if ice-water should be generally

discarded as a drink, the average duration of life would be lengthened and existence rendered more tolerable.—*North American Review.*

Among the many pernicious habits which have been frequently condemned in our pages, the practice of giving to mere infants powders and other drugs containing opium or other narcotics must be regarded as ranking first in order of reprehension. Over and over again physicians have condemned the practice in question, and the lay press has (on the occasion of coroners' inquests on fatally drugged children) taken up the cry against opiates for infants. If mothers and nurses would only be wise in time and use some simple but effective, and above all safe, medicine such as is represented by Woodward's Gripe Water, we should hear less of the baneful effects of opiates as administered to infants. There is scarcely an ordinary affection of early life which will not yield to a dose of this medicine, and it should therefore be kept handy in all nurseries. Attention to diet and cleanliness is the mainstay of infant life, and the fewer and simpler the remedies used the better both for child and mother.

The Comparative Wholesomeness of Chinese and Indian Teas.—One of the great advantages which Chinese teas are said to possess over those of India is their greater wholesomeness. On this subject the British Consul at Hankow, in his last report, gives a table of analyses of the two kinds of tea made by Professor Dittmar, F.R.S., from which it appears that the quantity of tannin in Indian tea is 9·68 per cent., and in Chinese 6·01. After twenty minutes' infusion of 100 grains of each there is present in the respective liquors 2·96 grains thenic and 6·53 grains tannin in the Indian, and 3·37 grains thenic and 3·86 grains tannin in the Chinese tea. "The teas in question," concludes Mr. Allen, "were both high-class teas, and the analyses given above certainly tend to show that there is an excess of tannin, with all its astringent and deleterious qualities, in the Indian tea."

Kaolin in Sweden.—According to a Swedish contemporary, a discovery has been made in the Island of If which promises to be of considerable value to Sweden. In ploughing the land in that place a layer of excellent chalk was brought to light, and while a geological survey of this chalk was being made, a lower layer of remarkably fine kaolin was revealed. Further investigation showed that the deposit was of considerable extent, and that its quality throughout was of the very highest. Specimens sent for analysis to the chemical station at Christianstad, as well as to Lund and Berlin, all taken from different parts of the deposits, have each been reported on as of remarkable purity. Hitherto porcelain clay has been found in Sweden in small quantities, and the existence of this extensive deposit was never suspected. A factory for the manufacture of articles from the If kaolin has already been erected, and a large trade in the exportation of these goods, as well as in the raw materal—for which there is always a good demand—is anticipated.

Special Notice.—The best stimulant for dietetic and other purposes is the "Skerryvore" (Registered) Blend of Fine Matured Scotch Whiskies, certified of the utmost purity by Mr. E. G. Clayton, F.C.S., Member of the Society of Public Analysts. Sold only by John Twatt, 36, Argyle-place, Edinburgh. Price 20s. per gallon, bottles and cases included.—[Advt.]

Popular Science Papers

"Blessings on Science! When the Earth seemed old,
When Faith grew doting, and our reason cold,
'Twas she discovered that the world was young,
And taught a language to its lisping tongue."

—*Charles Mackay.*

A GOOD STARVE.

There is a bit of popular physiology and folk-medicine which asserts that "a good starve" is a simple and effective means of treating not a few of the ailments to which flesh is heir. One very admirable feature of this remedy, and one which is certain to commend itself to many frugal minds, is its entirely cheap and inexpensive nature. I suspect that, like most really good and simple means of treating disease, however, the "good starve" will not attract devotees by reason of this very quality of cheapness, and because it is, perchance, a relatively unpleasant process when all is said and done. Nature abhors a vacuum—and, I will add, especially human nature. Starvation, or, to put it more mildly, abstinence from food for any length of time, is not an agreeable phase of life. If there is (as there should be) a fair amount of enjoyment in the healthy appreciation of the good things of this life, it is tolerably certain we cannot be justly regarded either as Philistines or Malignants, because we hear with agreeable delight the joyful sound of the dinner-bell or gong. But just as there is a philosophy of dining—discussed a week or two gone by—so it may turn out that "a good starve" has likewise a philosophic backing. It will never be a popular practice; of that let us all rest well assured. Like many other excellent things in the way of remedies—to wit, Gregory's far-famed powder, or even the bland and emollient oil of cod itself—the virtues of starvation are not to be measured by its purely physical characteristics.

One may rest in a tolerable sense of logical security after reiterating the assertion that the vast majority of us eat far too much. Amid the crowd of fads and "isms" with which we are deluged by would-be reformers in these latter days, there is scarcely a solitary voice which lifts up its accents to declare that we are given to gluttony in a physiological sense, or to extol the merits of frugal fare. Yet Nature herself preaches us many a sermon on that same text. When we are indisposed she does away with the appetite as sharply as the water company cuts off the supply when the householder is far behind with his rate. The starve we feel to be necessary under such circumstances is really but another name for the physiological rest of the organs we have overtaxed. Persons "with a liver," as the phrase goes, know only too well how, under a starvation *régime*, they recover their tone; and your gouty man and his plethoric neighbour are each similarly made to see that life is worth living after experiencing the benefits of a starve, and after giving the internal mechanism a necessary rest. Then, again, certain of our neighbours exemplify starvation, as related (under the name of "Fasts") to religious observances. The Jewish fasts are well-known institutions, and there are those who do not hesitate to attribute much of the energy and vitality of that ancient people to the regular exercise of abstinence from food at fixed periods. I have heard a High Church clergyman enunciate the same opinion as an argument in favour of Lenten fasting; and, as a physiologist, I confess I am in thorough agreement with such opinions.

If so much socially may be said for a good starve now

and then as a kind of hygienic rite, the question arises, What is the scientific side of abstinence from food? There can, of course, be no such thing possible as total abstinence from "food" for any length of time without a fatal result accruing. By food, however, let us see what one means. There is, first of all, air-food, the oxygen we breathe into our lungs; then there comes water, whereof two-thirds of our bodies by weight are composed. Next we want so much nitrogenous food, and so much starch and sugar and fat and oil per day, all of which things are non-nitrogenous in character. Finally, we must throw in an ounce or two per diem of the necessary minerals—iron for blood, lime for bones, phosphorus for nerve and brain, along with soda and potash and other inorganic substances. Now, it is very evident that as regards item the first, namely our oxygen, we cannot dispense with that commodity at all. It is absolutely necessary for the continuance of life, and fortunately it costs us nothing, and is not even included among the possible subjects of taxation by Mr. Goschen, enterprising as he is. As regards the nitrogenous foods, the albumen, and gelatine, and gluten, and so forth, and the starches, sugars, and fats, and oils, we can get on fairly well without them for several days at least. At a pinch we might want them, without of necessity landing in the undertaker's hands, for a longer period still. The minerals we usually get mixed up with our other foods, save, perhaps, our salt. But as for water—well, it is exactly the *one* food without which (leaving air out of consideration) we cannot attempt to exist for any period worth naming. The evidence on which this assertion is based is very complete in its character. Not merely do we know of shipwrecked sailors and entombed miners subsisting on water alone for somewhat extensive periods, and feeling relatively well when rescued, but we know of cases of harmless lunatics suffering from delusions who have starved themselves in secret, and who have lived on water solely for thirty, forty, or even fifty days. One may safely assert that all living nature participates in this demand for water as the essential food, leaving the all-surrounding air out of count for the moment. For to the plants in the window dryness is a fatal condition; and even the biggest tree succumbs when a long draught sets in, and no moisture gains access to its tissues. There may be abstinence, total or otherwise, from all other kinds of food (save air), but without water we are literally "nowhere," as the schoolboy puts it. It is the staff of life much more truly than the product of the baker's shop. In this light, then, water takes the first rank as a food; it is certainly the sheet anchor of a "good starve."

If one endeavours to subsist without food and water, life will come to an end, say, in from seven to eight days. But if one elected to live on water (and air), and obtained a plentiful supply of both commodities, he might live on, as we have seen, starved and meagre, and growing anything but "beautifully less" hour by hour, for thirty, forty, or even fifty days. This much was known long before the Tanners, the Succis, and others of that ilk began to exhibit themselves as paying examples of the "Great Starve." The reason why water of all foods will preserve life in the absence of every other form of nutriment has been already given. We are composed largely of water; it enters into every tissue; and it is needed for the performance of every act of life. Hence water asserting its importance thuswise in the body, comes, with air, to rank as the paramount food. Clearly, then, our "good starve" must mean and imply plenty of water and plenty of air. The other foods may for a time vanish away. The water will not supply the waste of the body, nor will it prevent the body feeding upon itself; but it will keep us going at low pressure, and in the absence of all food, ordinarily so called, will sustain us for many days. Water, then, is our great hope and succour in the "good starve;" and it may be well to bear this fact in mind if we contemplate at any time enjoying the unusual luxury of experiencing a relief from the onerous duty of finding out something fresh for the *ménu.—Dr. Andrew Wilson, in the "Illustrated London News."*

Marking Ink.—The following was recommended some years ago as being indelible, and requiring no heat: Phosphate of manganese, one ounce; hydrochloric acid, one ounce; anthracene, half an ounce; potassic chromate, quarter of an ounce; gum arabic, q. s.; water, quarter of an ounce. The phosphate to be dissolved in the acid, and the anthracene added in the water and potassic chromate; add the gum and shake. Write with any pen. Aniline black is also used for the same purpose, thus: Nigrocene, twenty-seven grains; hydrochloric acid, sixty drops; alcohol, forty-five drops. The mixture is diluted with a hot solution of forty grains of gum in six fluid ounces of water.

A New Departure in Out-door Games.—To lovers of nature, devotees of open-air amusements, and searchers after the curious, it may be interesting to learn that Wood House Park, an old and picturesque domain, with its stately and antiquated mansion, which, by the way, was visited by King Charles II., was opened on Saturday last to the public. The very beautiful and extensive grounds surrounding the mansion offers every attraction to the student, the athlete, and the pleasure-seeker. There are subterranean passages, remains of an ancient priory, an archway nearly 200 years old, a beautiful copy of the ancient Warwick Vase, fossils, &c. The whole of the extensive lawns, with turf of a bright emerald green and as soft as a Turkish carpet, are to be used for tennis. The size of these lawns may be imagined when it is stated that 100 courts could be simultaneously in use during a tournament. There will be a bicycle track of four laps to the mile for racing, running, and obstacle races. Polo, lacrosse, archery, gymnasium for ladies and gentlemen will find a place in the very liberal programme it is intended to carry out, which is also to include pastoral plays, bands of music, Canadian toboggan slide, and American switchback railway. The grounds are intersected by paths, along which it is proposed to place seats for the convenience of the visitors. These paths are delightfully shaded by overhanging foliage, making an enjoyable promenade of one mile and a half. The situation of the grounds, too, is favourable as regards railway accommodation, there being three stations within five minutes' walk, viz., the Shepherd's Bush Station on the Metropolitan Railway, the Shepherd's Bush Station on the South Western Railway, and the Uxbridge-road Station on the West London Extension Railway. Omnibuses and trams also pass near, so that with the attractions offered these gardens must become one of the most popular of London's attractions.

London Necropolis, Brookwood, Near Woking, Surrey. The largest and most beautiful cemetery in England. Five hundred acres exquisitely planted. Simple funerals. Earth to earth coffins can be used if desired. Pamphlets gratis. Apply—Secretary, 2, Lancaster-place, Strand.—[Advt.]

Public Health

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BURIAL REFORM.

Last week the Rev. F. Lawrence, Hon. Secretary of the Burial Reform Association, read the following paper at a meeting in the vestry of York Minster, at which the Dean of York presided:—The true principles for the burial of the dead lie in recognizing the decomposition of human remains as natural and necessary, and in providing against their becoming offensive to the living. "The fact is," writes Sir John Simon, the great sanitarian, "the human body, once destitute of life, forms no exception to the laws of organic decay. Under the common law of chemical change, the human body dissolves itself into products not less injurious than those of any animal's decomposition; and you cannot take a juster view of the subject, you cannot arrive at stronger arguments in favour of sanitary burial, than by forcing yourself to discard for a moment all memory of the fading human form, and to conceive it a mere bulk of animal matter in a state of decomposition."

Such being the true principles for the burial of the dead, in what manner are they to be carried into effect? The cemetery would be sufficiently remote from the city to prevent the probability of a population growing too near it, and would be surrounded by a belt of land totally devoid of resident population; interment would be in well-chosen soil at a depth proportionate to the qualities of the ground, with quickly-growing trees and plants above to assimilate emanations as they arise, and with thorough drainage below, that down currents of air and rain may freely traverse the strata, ventilating and washing the soil, and diffusing organic matter through deeper levels till their oxidation is complete, and their new combinations are discharged in watery solutions into the drains below; soil, where not suitable for the dissolution of human remains, would be specially prepared before each interment; the coffin would be chosen for its perishable properties rather than for its powers of endurance, that there may be nothing to prevent the purifying and distegrating action of earth and air upon the body itself; each body would have its own grave.

It was Sir John Simon who wrote to the Lord Mayor of London, "No consideration of cheapness can justify the indecency and the danger to the public health of huddling many bodies into one pit; and in a presence which confounds all social comparisons no disrespectful distinctions are admissible." After death there would be no disturbance of the soil until the final disintegration of the body was complete, and the first occupant be fairly deemed to have abdicated its tenure. Instead of family vaults there would be family plots kept as small gardens, where the dead are buried side by side, each in the frailest covering, the earth being ready, generation by generation, as each tenant passes away, to receive the dead for any time to come.

The inquiry at once arises, How can the extra cost incurred by such sanitary burial be met? By an alliance between the bereaved themselves, the immediate friends and neighbours, the charitable rich and the cemetery authorities. The bereaved can reduce the expenditure now incurred. There need be no retention of the dead body after signs of dissolution have set in, no special mourning attire, no crape, no funeral trappings, no costly nor durable coffins, no carriages except for the old and weak, no bricked grave or vault, no unnecessary show, no feasting, no treating, no avoidable expense. The immediate friends and neighbours can make the occasion of a death, rather than a wedding, an opportunity for tendering personal service, and making useful presents and gifts of money. The charitable rich can convert their family vaults into earthen plots, set an example of simplicity and economy in every detail of funeral ceremonial, use floral decoration sparingly, and make the provision of suitable cemeteries a special object to be aimed at in the near future, and themselves present tracts of land near large towns to be so used, thus showing forth true practical Christian sympathy with the living, and due respect for the dead.

Managers of cemeteries can compel the observance of the principle of temporary tenure instead of tenure in perpetuity. They would insist upon the land being used as a decaying place for the dead instead of a place for their preservation, and thus bricked graves and imperishable coffins would be rigidly excluded, and only such memorials permitted as do not exclude the air from the earth beneath. Thus the entire area of the cemetery is available for use, generation by generation, for all time to come, rendering a new cemetery unnecessary.

Shepherd's Purse as a Remedy for Bleeding.—Dr. K. E. Wagner publishes some observations which tend to show that the capsules of shepherd's purse when made into a tincture have very considerable hæmostatic properties. The cases were of different kinds, two of them being of uterine hæmorrhage, two of hæmoptysis, and one of epistaxis. In all these a marked effect was produced, the hæmorrhage being either entirely arrested, or at least very greatly diminished. No unpleasant effects, such as headache or dyspnœa, were observed, even when three tablespoonfuls of the tincture were taken in the course of twenty-four hours, the usual dose being from four to six teaspoonfuls.

Where Colours Come From.—The cochineal insects furnish a great many of the very fine colours. Among them are the gorgeous carmine, the crimson, scarlet carmine, and purple lakes. The cuttlefish gives the sepia. It is the inky fluid which the fish discharges in order to render the water opaque when attacked. Indian yellow comes from the camel. Ivory chips produce the ivory black and bone black. The exquisite Prussian blue is made by fusing horses' hoofs and other refuse animal matter with impure potassium carbonate. This colour was discovered accidentally. Various lakes are derived from roots, barks, and gums. Blue-black comes from the charcoal of the vine stalk. Lamp black is soot from certain resinous substances. Turkey red is mud from the madder plant, which grows in Hindostan. The yellow sap of a tree of Siam produces gamboge; the natives catch the sap in cocoanut shells. Raw sienna is the natural earth from the neighbourhood of Sienna, Italy. Raw umber is also an earth found near Umbria and burnt. India ink is made from burnt camphor. The Chinese are the only manufacturers of this ink, and they will not reveal the secret of its manufacture. Mastic is made from the gum of the mastic tree, which grows in the Grecian Archipelago. Bistre is the soot of wood ashes. Very little real ultramarine is found in the market. It is obtained from the precious lapis-lazuli, and commands a fabulous price. Chinese white is zinc, scarlet is iodide of mercury, and native vermilion is from the quicksilver ore called cinnabar.

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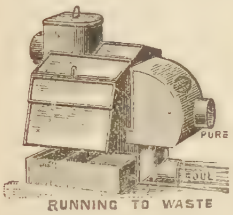

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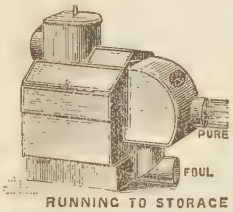

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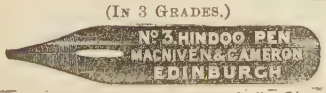

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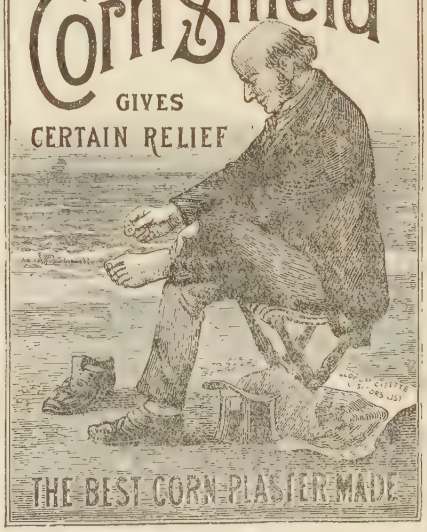

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The price of numbers 1–156 has been increased to 4d. each, as, in consequence of the great demand for them, they are now nearly out of print. Nos. 157 to date may be had, price 2d. each.

LONDON: A. P. WATT, 2, PATERNOSTER-SQUARE, E.C.

Healthy Houses

"A happy home must be a healthy home."—*Anon.*

COMMUNICATION OF INFECTION.

From the number of cases reported of infectious diseases that have been communicated through articles that have been in the possession of those afflicted with such diseases, it would seem that greater attention should be given this matter. The virulence of many disease germs has been shown, says the *Sanitary News*, to be of long life, capable of being transmitted through many years. Cases of scarlet fever, diphtheria, and typhoid fever have been reported in which the infection was communicated by articles that had been possessed by the sick years before.

In cases of small-pox and yellow fever, infection by this means is considered well enough founded and dangerous enough to make the destruction of clothing and all articles exposed to infection imperative by a general law of health departments. If such articles are not burned, they must be subjected to disinfection by steam at a high temperature.

Our public and circulating libraries, "second-hand" book, clothing, furniture, and other stores, are all means by which disease germs could be communicated. Dealing in "second-hand" goods has grown to such an extent that almost all communities have representatives in their midst. Goods may be on the tables of the "second-hand" dealer or broker which could have hung in the room of one afflicted with some infectious disease for weeks, and no one who may want to purchase, or even the dealer himself, know of it. Or there may be the furniture, or even the bed and bedding on which the patient lay.

Probably the most danger lies in books. With most patients there is a time in their sickness when they want books with which to pass the hours of convalescence. The home library seldom is sufficient, and the public or circulating library is resorted to. The book goes from the patient's into another's hands bearing all the seeds of which it is capable. Either there is danger of communicating disease in this way, or the germ theory is a failure.

This matter has been deemed of such importance that in many European countries extensive investigations are being made regarding the infectiousness of books handled by the sick. The investigation should extend to all "second-hand" goods, and be conducted with great care and minuteness. In commenting upon this subject, the editor of the *Christiana* (Norway) *Sanitary Journal* gives the following personal experience, which is but one of similar cases reported:—

In 1846 an eight-year brother of my wife was taken down with scarlet fever and died. During his illness he frequently amused himself by looking over a large picture book. This, together with several other of his useful playthings, was packed away in a chest after his death. Twenty-six years afterward, in 1872, a sister-in-law of mine journeyed across the channel to England, where I was then residing, and with her came the chest and the picture book. On the second day the chest was opened and the book presented to my two-year old son. Within the next two weeks the little fellow was taken down with scarlet fever. The doctors who were called in consultation wondered how the disease was contracted, as there had been no scarlet fever in the town for years. The circumstances of the book were called to mind, and the indications were clearly that the twenty-six year old book had retained the poison and communicated it to the child.

Had not this book been mentioned and its history given, here would have been a case of "spontaneous" scarlet fever. Phthisis is said to be communicated by sweepings from carpets in the rooms occupied by such patients, yet "second-hand" carpets are not only placed on sale, but hung out of store windows and displayed on the sidewalks, and no one knows how contaminated they may be from the expectorations of the consumptive.

Salicylate of Sodium in Itching.—Dr. Icard reports, in *La Gazette Médicale*, a case of obstinate itching, which had resisted a number of remedies, but was quickly relieved by the internal use of sodium salicylate in doses of forty-five grains a day.

Pulmonary Consumption is more to be feared in every community than any other disease that affects mankind. Cholera, yellow fever, and small-pox — diseases that paralyze with fright entire countries—are exceedingly limited in their results in comparison with the slaughter of consumption. Last year, Florida was panic-stricken from the havoc of yellow fever; but during the same year consumption destroyed more than twice as many lives in the little State of New Hampshire, and not a tremor ran through the body corporate. The average annual death-rate in this country from cholera, yellow fever, small-pox, typhoid fever, diphtheria, and scarlet fever, all combined, does not reach the enormous total of deaths from consumption. It is time that some determined and systematic effort be made to lessen this disease, which is now regarded by so many as preventible. Among the general sources of infection there is one, at least, that should be removed, or, if not wholly removed, greatly lessened by legal action, and that is the sale of tuberculous food-products. Such foods, chiefly in the form of tuberculous meat and milk, particularly the latter, are undoubtedly extensively sold to unsuspecting consumers; and that the results are not infrequently lamentable, no sanitarian doubts. The general Government has taken no measures to restrict this abuse, nor have the individual States. To illustrate: The New Hampshire State Board of Health says that very recently complaint was made to the Board of Cattle Commissioners that some disease existed in a herd of thirty cows in a certain town of the State; and, under the assumption that the disease might be pleuro-pneumonia, the Government, upon notification, sent a competent veterinary surgeon to inspect the herd. The inspector immediately diagnosed tuberculosis, had an infected cow killed, and the *post mortem* examination revealed tubercles in nearly every organ of the body, including the udder. The inspector reported that about 75 per cent. of the herd was already infected. All, or nearly all, the cows were being milked, and the product being sold daily to a milk-dealer for distribution among his customers. The dairyman, ignorant of the character of the disease, was bringing up a baby upon the milk of a single cow in which the disease had advanced nearly to its fatal termination. Under the laws of New Hampshire, neither the Board of Cattle Commissioners nor the State Board of Health has any authority to deal with tuberculosis in cattle in a way necessary to restrict its spread among other herds, or to prevent the dangers to which it subjects the human family.

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sydney.*

Musical Overstrain.—The weariness of long-continued study is proverbial. Its explanation is not far to seek. One portion of our entire being is almost exclusively occupied, and the monotony of the process constitutes in large measure the cause of exhaustion. Relief must accordingly be sought in rest, in the exercise of other functions, or in variation of the form of mental exertion. Such timely and refreshing change enters into all well-ordered plans of education. There is, however, in every study a stage at which persistent concentration is indispensable to anything like high development. Reiteration, though tedious, is necessary to full instruction. Perhaps no better illustration of this fact could be found than that which is constantly evident in the cultivation of music. One could hardly conceive of anything more truly monotonous than a continuance of that tax of patience, piano practice. No doubt inclination and inborn faculty may do much to create an interest, but the most enthusiastic learner will sometimes, notwithstanding, rebel against the exactions of musical cram. It has even been stated by a German observer that much of the nervous delicacy so common among girls is traceable to excessive diligence at the piano. There is more than a grain of truth in this observation. The limit of moderation, indeed, may not be capable of exact definition, for a longer or shorter period would naturally suit the need and capacity of different persons. One or two hours of practice, it is probable, would rarely prove excessive. When, however, six or eight hours are daily absorbed in repeating a humdrum series of manipulations, the wonder is that nature long endures the drudgery. Yet this is the common lot of many who aspire to skilful execution. The coveted perfection doubtless is often approximately reached, but the associated circumstance of nervous overstrain will suggest a doubt whether such qualified excellence is altogether desirable. At all events, it is but reason to allow that proficiency so dearly purchased is not, for young people of deficient nervous tone, a social necessity, especially if they be also void of any special artistic aptitude. Nay, even for those whose health and energy permit them to enjoy, if they choose, the privilege of musical hard labour, a frequent interlude of rest and recreation is no less needful than discreet.—*Lancet.*

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The Effects of Carbonic Oxide upon the Blood.—A statement by Professor W. P. Mason, of the Rensselaer Polytechnic Institute, respecting the poisonous character of water-gas, appears in a recent issue of the *American Gaslight Journal.* He refers to an event in the history of Troy, in the State of New York, where, owing to a break in the street mains, a quantity of fuel-gas passed underneath the frozen crust of earth and percolated into the adjoining houses, causing four deaths and many more or less serious illnesses. The composition of the gas by volume was: carbonic acid, 5; oxygen, 0·5; carbonic oxide, 37·5; light hydrocarbon, 0·9; hydrogen, 48; nitrogen, 7·1. It was practically odourless, and gave no warning of its presence in dangerous quantity in the atmosphere of the houses. The unconscious victims died without any struggle, their appearance when found indicating that the insensibility which passed into death overtook them without creating any previous alarm, or disturbing them from their occupations and attitudes at the moment of seizure. What is most remarkable is that fires were burning and lamps lighted in the rooms invaded by the poisonous gas, which was therefore strong enough to kill without being strong enough to form an explosive mixture. Very searching *post mortem* examinations of the victims were made without disclosing anything abnormal, with the exception of the bright cherry-red colour of the tissues and the vivid redness and fluidity of the blood. When the operating surgeon opened the chest cavity, he endeavoured to detect any unusual odour, and was immediately affected with giddiness, and the subsequent oppression did not wear off for twelve hours. A lawsuit followed the accident, and Professor Mason was retained to analyze and experiment upon the fuel-gas and its effects upon living animals. In this way the analysis already given was made. It is placed upon record by Professor Mason that, both microscopically and by the spectroscope, the effects of carbonic oxide poisoning may be detected in a sample of blood kept in a bottle and not examined for a year after the death of the animal from which it was taken. Even after two years such a sample of blood will still retain the characteristics noted when first inspected.

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A Sanitary House.—It will stand facing the sun on a dry soil in a wide, clean, amply sewered, substantially paved street, over a deep, thoroughly ventilated and lighted cellar. The floor of the cellar will be cemented, the walls and ceiling plastered and thickly whitewashed with lime every year, that the house may not act as a chimney to draw up into its chambers micro-organisms from the earth. Doors and windows, some of which extend from floor to ceiling, will be as abundant as circumstances permit, and will be adjusted to secure as much as may be through currents of air. The outside walls, if of wood or brick, will be kept thickly painted, not to shut out penetrating air, but for the sake of dryness. All inside walls will be plastered smooth, painted, and, however unæsthetic, varnished. Mantels will be of marble, slate, iron, or, if of wood, plain, and whether natural, painted or stained, varnished. Interior wood work, including floors, will all show plain surfaces and be likewise treated. Movable rugs, which can be shaken daily in the open air—not at doors or out of windows, where dust is blown back into the rooms—will cover the floors. White linen shades, which will soon show the necessity of washing, will protect the windows. All furniture will be plain, with cane seats, perhaps, but without upholstery. Mattresses will be covered with oiled silk; blankets, sheets, and spreads, no comforts or quilts, will constitute the bedding. Of plumbing, there shall be as little as is necessary, and all there is shall be exposed, as is the practice now. The inhabited rooms shall be heated only with open fires, the cellar and halls by radiated heat, or, better, by hot-air furnace, which shall take its fresh air from above the top of the house, and not from the cellar itself or the surface of the earth, where micro-organisms most abound. There will be "house-cleaning" twice a year. Put into this house industrious, intelligent, and informed men and women—absolutely essential conditions—and as much will be done as at present may be done to prevent the dissemination from it of contagious disease, when an inmate brings it home from a septic house, hospital, sleeping-car, school-room, theatre, church, &c.—*Independent.*

Bad Diet, not Overwork.—It is a very common and mischievous notion that unless an article of food doubles up a child with colic or throws him into a fever within twenty-four hours it does him no harm. We often see whole families of children who are thin, sallow, and nervous. They lose many days of school because they cannot "keep up;" and the parents complain bitterly of "our high-pressure system." They are bilious, or have headache, or "summer complaint," or they cannot sleep, or they have no appetite. In short, they are sick half the time, or half sick all the time. But suggest to the mother of this family that perhaps their food is not suitable, and she will indignantly answer, "Oh, no! they never eat anything that hurts them." The blame is laid on malaria—that modern scape-goat who bears our sins of eating and drinking—or on over-study, or nervousness, or delicate constitution, or anything but the real reason. The trouble actually is that the stomach is doing its hard work on *brain*. Brain and body call for strong, rich blood to build up their rapidly growing tissues, and to replace what exercise and study burn up. But what does the stomach get to make it of? Greasy meats, with all the life-giving qualities cooked out of them; hot bread, and compounds like it; all kinds of fried abominations, whose original excellence is destroyed by being steeped in boiling lard; rich cake and pies, sweets and candy. All these tax digestion to its utmost, and give little nutriment in return. Poor Jenny starts off to school, after a restless night in a room with every window closed for fear of the "night air," with nothing for breakfast but a cup of strong coffee "to keep up her strength" and a hot roll. "She never has any appetite mornings." She comes home to dinner faint and hungry, to find roast pork and mince pie, or fried ham and heavy apple dumplings, which her poor, eager stomach takes and tumbles over and over all the afternoon, while her brain labours heavily with the afternoon lessons. A supper of something which tempts but does not nourish the tired stomach finishes the day. Her lessons are not learned. How could they be, when her brain has had to work against odds all day? So she works drearily and clumsily all the evening, then goes late to bed in her close room, with lessons, lessons in her head all night. No wonder that she cannot eat any breakfast the next morning!—*Mary Blake, in the "Golden Rule."*

The Whitening of Brick Walls.—The unsightly efflorescence on walls, due to what is termed "saltpetring," and noticed generally in dry weather, is due, according to the *Building News*, to several causes. Perhaps the only satisfactory explanation is, that the newly built brick wall is exposed to dampness, or dampness in co-operation with something in the bricks themselves. It is stated that bricks made from clay containing iron pyrites are subject to this efflorescence; that the sulphur from the fuel converts the lime or magnesia into sulphates, and that whenever the bricks dry, the sulphates evaporate, leaving behind the crystalline appearance or efflorescence. The evil is therefore due to the chemical action that takes place between the sulphur in the fuel and the magnesia in the clay, The mischievous part of the efflorescence is that it destroys the pointing and injures the work generally. Remedies are few. The chief object is to stop up the pores with some solution of fatty matter, quicklime, and cement powder; but the main thing is to avoid the particular clay and coal fires employed to make and burn the bricks, and to mix the mortar with animal fat.

Sanitary Appliances, Etc.

THE MISSISQUOI SPRING WATER.

The Missisquoi Springs are situated on the Missisquoi river, in Franklin County, Vermont, about three miles north from the village of Sheldon, and about ten miles in a north-easterly direction from St. Albans. They are thirteen in number, all within the space of an acre of land, and all possessing different minera qualities. The principal Spring is called the Missisquoi, and has been renowned in all the neighbouring region for three-quarters of a century for its marvellous cures of scrofula and other diseases arising from impurities of the blood, even including the earlier stages of cancer, and also diseases of the kidney and bladder. During the period named the people in all the country around have repaired to these Springs to derive the benefit to be had from their healing waters. The Missisquoi Spring has more than a local reputation. It was brought to general attention many years ago, and attained a celebrity, not only in America, but in Europe. The former proprietor received many testimonials as to the efficacy of the Missisquoi in the treatment of cancerous affections, kidney and bladder diseases (including gravel), scrofula, cutaneous eruptions, catarrh, and rheumatism. In 1869 the Springs became involved in litigation which terminated but recently. In 1870 the hotel was burned, and since that time, owing to the litigation, the property has been lying unused except by the people of the vicinity, whose constant resort to it is the best proof of its value—and the public has been deprived of the benefit of these wonderful waters. Under a legal sale, the Springs Property has passed into the hands of the present proprietors, who will again offer the "Missisquoi Spring Water" to the public. Confident that its remarkable properties will speedily give it the high reputation it had twenty years ago, they will not vaunt its qualities, but will leave it to tell its own story through the mouths of those who use it. The former proprietor believed that it would cure those two scourges of the human race—cancer and Bright's disease of the kidneys. This belief he based on the enthusiastic and grateful testimony of those who supposed themselves afflicted with those diseases, and upon whom the Missisquoi Water had effected wonderful cures. Their cases, although serious, had not, perhaps, reached the terrible stages which have thus far steadily baffled medical science; but it is reasonable to suppose that the witnesses to these cures, whose respectability is well vouched for, were freed from maladies which their physicians told them were tending towards the deadly diseases named. The arrest and cure of cancerous disease, well advanced, but before the malignant form had been reached, have apparently been accomplished by the water of the Missisquoi Spring, and severe diseases of the kidneys tending towards Bright's disease have been successfully treated by it. It has done wonders in cases of scrofula and other diseases of the blood. Messrs. Ingram & Royle, 52, Farringdon-street, London, E.C., who are agents for all the most notable mineral waters, are now prepared to supply Missisquoi Spring Water to patients in Great Britain. The British medical faculty should give these waters a fair trial in imitation of their American brethren.

BLUINE.

This is an ingenious means of using blue in washing; "Bluine," consisting of a sheet of tissue which is simply dissolved in water and acts excellently in all laundry operations. The advantages claimed for "Bluine" are, that it does not spill, or settle in the water, that it does not streak the clothes, and it is free from all injurious chemicals. The laundress is also able to calculate to a nicety the quantity required, and waste is thus avoided. A laundress testifies that one leaf of "Bluine" (costing a farthing) does more work, and better, than a penny bottle of blue. "Bluine" can be had of all grocers and oilmen, and its use is rapidly extending. The antiquated "blue bag" must now become an effete and extinct appliance in face of the cleanly and handy "Bluine" itself.

To clean lamp burners, take a piece of sal soda the size of a walnut, put into a quart of soft water, put your lamp burner in it (an old tomato can is good enough), set it on the stove; after boiling for five minutes remove the burner, and when put back on lamp will be as good as new. All the carbon on the old burners should be removed once every month.

IMPORTANT ANNOUNCEMENT.

BONUSES TO SUBSCRIBERS TO "HEALTH."

HEALTH, as our readers are aware, may be obtained of all Booksellers and Newsagents, and at the Railway Bookstalls, on the day of publication. It may also be ordered from the PUBLISHER, 2, Paternoster-square, London, E.C., who will send the journal, post free, for a year, on receipt of postal orders for 10s. 10d.

As many of our readers who live in remote districts prefer to obtain HEALTH from the Publisher direct, and as we are desirous of increasing the already large number of subscribers who give us a yearly order for the journal, we offer the following FREE GIFTS and BONUSES to all who subscribe to HEALTH for one year or longer :—

(1.) To each Subscriber who remits 10s. 10d. to the Publisher, entitling him (or her) to receive one copy of HEALTH, post free, for one year, we shall present a copy of Dr. Andrew Wilson's work, entitled "A Manual of Health Science" (Longmans & Co.), value 2s. 6d.

(2.) To each subscriber who remits 21s. 8d., entitling him or her to receive two copies of HEALTH weekly, post free, for one year (or one copy for two years), we will present Dr. Richardson's "Ministry of Health" (Chatto & Windus), value 6s. The copies of HEALTH so ordered may be posted to separate addresses.

(3.) To each person who subscribes 32s. 6d., for three copies of HEALTH, post free, weekly, for one year, we will present the volume by Dr. Richardson mentioned above, and also the handsome, illustrated book entitled, "Studies in Life and Sense," by Dr. Andrew Wilson (Chatto & Windus), value 6s.—being a free gift of the total value of 12s.

The bonus last mentioned will also be presented to anyone who succeeds in obtaining three yearly subscribers to HEALTH, and who remits to the Publisher the sum of 32s. 6d., together with the names and addresses of the persons to whom the copies are to be posted each week.

As the literary gifts above-mentioned constitute books containing solid and reliable information regarding health and other matters of popular scientific interest, it will be seen that the above scheme, while intended to increase our already large circulation, also offers distinct advantages to new subscribers who guarantee by their subscriptions a year's support to this journal. All communications regarding subscriptions and other purely business details connected with HEALTH should be addressed directly to the PUBLISHER, 2, Paternoster-square, London, E.C., and *not to the Editor*.

Our Letter-Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including Books for Review, Specimens of Sanitary Appliances, &c.), to be addressed to "THE EDITOR OF HEALTH," 2, PATERNOSTER-SQUARE, LONDON, E.C. Those intended for the Publishing Office to be sent to MR. A. P. WATT, THE PUBLISHER, at the same address.

RULES FOR CORRESPONDENTS.

OWING to the mass of letters which reaches us each week, we respectfully direct the attention of Correspondents, desiring

"ELECTRICITY IS LIFE."
(TRADE MARK.)

PULVERMACHER'S
WORLD-FAMED
GALVANIC BELTS,

FOR the CURE of NERVOUS DISEASES,
HAVE RECEIVED TESTIMONIALS from
THREE PHYSICIANS to
HER MAJESTY the QUEEN,
THE ACADÉMIE DE MÉDECINE of Paris and
FORTY MEMBERS of the
ROYAL COLLEGE of PHYSICIANS of LONDON.

RECENT TESTIMONIALS.

GALVANISM *v.* NERVOUS DEBILITY & HEADACHE.
Alvaston, Derby, 6th July, 1889.
Gentlemen,—I am pleased to say that I have derived great benefit from your Galvanic treatment, and when talking to anyone in our town or wherever I may be, I always recommend you, because I have now proved your Galvanic Belt to be the best remedy for nervous headache and nervousness generally that I have ever tried.—Yours very truly, W. S. WOODWARD.
Messrs. Pulvermacher & Co., 194, Regent-street, W.

GALVANISM *v.* LOCAL WEAKNESS.
Finchley, near London, June 23rd, 1889.
Dear Sir,—In October last you supplied me with a Chain Battery Combined Band and Belt, from which it is no exaggeration to say I experienced relief in a few days, and in five months was completely cured of the local weakness from which I was suffering for more than three years. I had tried various remedies without effect, but your method operated at once. It is simple, natural, and safe, and I only wish the thousands who, it is grievous to think, are suffering from these dire maladies, could hear of and give a a trial to your treatment.
Allow me to thank you again most sincerely for the kindness which you personally showed me at a critical and perplexing moment. I shall not easily forget it, but doubtless you are compensated by that generosity of heart which brings its own reward. I enclose my card, and you are at liberty to publish this and to refer any one to me privately, but I particularly desire my name to be suppressed publicly.—Gratefully yours, C. E. S.
Mr. J. L. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* NERVOUS EXHAUSTION.
Fernside, Southampton, June 22nd, 1889.
Dear Sir,—I cannot speak too highly of your Galvanic Appliances for all kinds of Nervous Exhaustion, &c., and only wish, as there are so many now suffering from these and other complaints, that they would give your Galvanic Belts a trial, as I feel by them, and the blessing and help of our gracious God, I have been kept alive.
I send you this unasked for, and if it meets the eye of any who are now suffering I shall be pleased to answer any questions if you will give my name and address privately to any inquirers.—Yours faithfully,
J. L. Pulvermacher, Esq., 194, Regent-street, W. S. I. S.

GALVANISM *v.* SCIATICA.
Donnington House, Stow-on-the-Wold, June 22nd, 1889.
Dear Sirs,—I am pleased to say that the combined Electric Band you sent me for Sciatica has quite cured me.—Dear Sir, yours truly,
GEO. WHITFIELD.
J. L. Pulvermacher & Co., 194, Regent-street, W.

GALVANISM *v.* EXTREME NERVOUS DEBILITY.
Darmule, Kilwinning, N.B., June 19th, 1889.
Gentlemen,—I cannot find words to sufficiently thank you for the great benefit I have derived from the use of your Chain Bands. What an immense amount of suffering I should have been saved had I known of your appliances years ago! Therefore I shall endeavour to make my experience of your treatment as widely known as I possibly can.—Yours very truly,
JOHN BAIRD.
Messrs. J. L. Pulvermacher & Co., 194, Regent-street, W.

GALVANISM *v.* NERVOUS DEBILITY.
Sutton Valence, Staplehurst, 15th June, 1889.
Dear Sir,—I am glad to say that my friend, who has only worn your Galvanic Belt a short time, is now perfectly cured, and therefore I am wearing the Belt myself now; and already I feel I am deriving great benefit.—Yours respectfully, T. FULLER.
Messrs. J. L. Pulvermacher & Co., 194, Regent-street, W.

GALVANISM *v.* NERVOUS EXHAUSTION.
Aldershot, 9th June, 1889.
Dear Sir,—I have received so much benefit from the use of your Galvanic Belt and Combined Band that you may rest assured I shall not fail to make known to others who may be suffering like myself the wonderful results that may be achieved by means of your treatment.—Yours faithfully,
(Sergeant) H. F. NESBIT.
Mr. Pulvermacher, 194, Regent-street, W.

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replies in the LETTER-BOX DEPARTMENT of HEALTH, to the following rules :—

1. All questions are answered free of charge in the columns of HEALTH. A limited space only, is available for the insertion of replies each week.
2. All letters must be legibly addressed to "The Editor of HEALTH, 2, Paternoster-square, London, E.C.," *and to no other address.*
3. Questions to which answers are desired by post, are so replied to solely at the Editor's discretion. If no answer is sent by post, the query will be replied to in the "Letter-Box" columns of HEALTH. A stamped addressed envelope must accompany all queries to which a private reply is desired.
4. Addresses of physicians and surgeons will, as heretofore, be forwarded FREE to Correspondents on their enclosing a stamped addressed envelope for reply.
5. Correspondents are requested to write on one side of the paper only, and to make their inquiries as brief as may be consistent with clearness.
6. From the necessity of sending HEALTH to press early in the week, no Correspondent can be replied to in the "Letter-Box" columns in the same week in which the inquiry is received. Replies crushed out of any issue will be found in the succeeding number.
7. No Post Cards must be used in sending queries. Violation of this rule deprives the sender of the privilege of a reply.

QUERIES AND ANSWERS.

REPLIES: GENERAL, SANITARY, AND MEDICAL.

[Readers of HEALTH will kindly note that when back numbers of the journal are desired, the letters containing such requests and stamps for the numbers should be addressed to the PUBLISHER of HEALTH, 2, Paternoster-square, London, E.C., and *not to the Editor.*]

CHANCERY.—In such a case we should recommend you to take the patient to a bracing seaside resort (*e.g.*, Margate or Ramsgate), and give her a long holiday by the sea. This treatment of itself, with judicious sea bathing, will probably cure the case. Give twenty drops Fer Bravais, thrice daily, after food, in water, as a suitable tonic, and write again if we can be of further service.

POOR SINNER.—You are exciting yourself quite needlessly. Go and take a holiday on the Clyde, if possible, and take a teaspoonful of Inman's Syrup of the Hypophosphites (advertised in our pages) after meals, thrice daily, in a wineglass of water.

ARTHUR.—Your mind, and not your body, is at the root of your troubles. You want plenty of fresh air, and exercise, and cheerful society, with a cold sponge bath each morning. Your diet should be generous, and you should take a little stout or claret to dinner daily. So long as you brood over your fancied troubles you will not be well. Rouse yourself up, and give over your brooding. Continue the tonic you have been taking for a time at least.

G. S. A.—We do not know the firm you name. Try Mr. Pulvermacher, 194, Regent-street, London, W.

JOHN GEORGE.—Try the following as a liniment, and apply cautiously to the parts night and morning: — Menthol, three drachms; chloroform, four drachms; olive oil to make up two ounces. Clothe warmly in Forsyth's "Hygienic" Underclothing, Renfield-street, Glasgow.

S. P. CLARK.—Give up the tonic for a time, and take twenty or thirty drops of the Cascara Cordial, or two Cascara Tabloids, twice daily between your meals. Eat whole-meal bread, stewed fruits and vegetables, and avoid tea and coffee. Substitute for tea, morning and night, Scott's Midlothian Oat Flour.

PATTY.—A lotion for blackheads is made by mixing three drachms of sulphur, four drachms of glycerine, and four ounces of rectified spirits. This should be rubbed into the skin at night. You must also take hot baths and use a hard towel, and avoid excess of fatty foods.

A. L. S.—Send us stamped addressed envelope, and we will forward the address of a specialist who removes superfluous hairs by means of electricity.

J. F.—Bathe the parts night and morning in cold water, or take a cold sponge bath each morning. What you name is not uncommon even in persons who are perfectly healthy, and may arise indeed from very excess of vigour.

PETER PRICE.—Look to your teeth in the first instance, and brush them night and morning with Bunter's Puriline, using after washing a little of the Puriline Mouth Wash.

E. ALLEN.—What you name is due to feeble assimilation of your food. Rest rigidly after meals, and see that you avoid all indigestible foods. A teaspoonful of Inman's Syrup of the Hypophosphites taken in a wineglass of water after your meals may aid you. If not, try the plan of taking a glass of stout with your dinner.

G. SAYERS.—Your plan is utterly uncalled for, and would have no effect. What you name, besides, is not a disease, as you seem to suppose. Read the pamphlet, "A Lecture to Young Men" (post free, for 1s. 1d., from Mr. Renshaw, 356, Strand, London, W.C.), and learn therefrom all the health rules necessary for your case.

C. B.—Order of your druggist. Messrs. Burroughs, Wellcome & Co., Snow-hill-buildings, London, E.C., are the makers.

JOHN CLAY.—The temperature of an ordinary warm bath, say, from 96 degs. to 104 degs. Fahrenheit: you should remain in the bath for ten minutes, at least, maintaining the same heat of water.

NOMEN.—Try Dahl's Cakes, and take a Cascara Tabloid or two (Messrs. Burroughs, Wellcome & Co.'s) when you are troubled, or try twenty drops of Cascara Cordial. Take Grant's Oat Flour in place of tea and coffee, night and morning.

PERTH.—Talc is a salicate of magnesia. The best is got from the Tyrol, and is called Venetian Talc. Selenite is a species of gypsum, a native lime sulphate.

E. MARSTERS.—Try the compound liquorice powder, and give ten or twenty grains of it in milk in the morning as a cure for the constipation in the case you name.

F. BORTHWICK.—No; but gelsemium is often used as a cure for neuralgia. The pill is made by mixing one grain of gelsemin with glycerine and rectified spirit in sufficient quantities. This pill is to be taken at bedtime.

O. M.—1. The formula varies, but the following is a typical one for Blaud's pills: Sulphate of iron, two and a half grains; carbonate of potash, two and a half grains; sugar, one grain; tragacanth, one to six grains. Three pills to be taken thrice daily. 2. Try Scott's Midlothian Oat Flour.

Y. Z.—The question is one for a veterinary surgeon; but we should say it is a matter for careful dieting.

CLYDESDALE.—See advice to "Bimbi" in the last number of HEALTH.

LONGHOPE.—Try the effect of taking a teaspoonful of Inman's Syrup of the Hypophosphites in a wineglass of water, after your meals, thrice daily, and let us hear how this advice benefits you. Be careful regarding your diet, which should be of generous nature. Take plenty open-air exercise, and a cold sponge bath each morning.

AN ALARMED ONE.—Read the pamphlet "A Lecture to Young Men" (post free, for 1s. 1d., from Mr. Renshaw, 356, Strand, London, W.C.), and follow out the health rules regarding diet and cold sponging it gives.

CINQUE.—Apply to the French Hygienic Society, 6, Conduit-street, London, W., and try their hair-preparations. Continue the Fer Bravais, but a change of air would be likely to be of great benefit to you.

ARABELLA S.—To make a shampoo liquid, try the following:—Soft soap, half an ounce; powdered borax, one drachm; ammonia, one drachm; eau de Cologne, half an ounce; boiling distilled water, twenty ounces. Dissolve the soft soap and borax in the water, and when cold add the ammonia and eau de Cologne.

G. FEARTHER.—Take twenty drops Cascara Cordial twice daily occasionally as a corrective to your digestive troubles. Avoid late suppers; give up all stimulants; and try Scott's Oat Flour for breakfast and supper. Tea and coffee are to be avoided till you recover your health.

P. S. S.—Try sulphonal, in a ten-grain dose, taken at night. As a tonic try Horsford's Acid Phosphate.

NIL DESPERANDUM.—You may find the diet hints given in the pamphlet, "A Lecture to Young Men" (post free for 1s. 1d. from Mr. Renshaw, 356, Strand, London, W.C.), useful to you; but for the skin trouble we advise you to wash with Vinolia Soap, and apply Vinolia after washing as an ointment to the parts (Roberts & Co., 76, New Bond-street, London, W.).

BATCHELOR.—Try the remedy recommended to "A. Giles" in last week's HEALTH. Keep your hair very short for a time, and wash it once every ten days with Bayley's Spermaceti Soap (17, Cockspur-street, London, S.W.).

B. SARGENT.—Take a teaspoonful of Inman's Syrup of the Hypophosphites (advertised in our pages) thrice daily, after your meals, in a wineglass of water.

A. F. PEEBLES.—See advice to "O. M." above.

G. M.—Use a Burroughs' Chloride of Ammonium Inhaler. This will probably aid your cure more effectually than any other means.

LAURA.—We advise you to consult the French Hygienic Society, 6, Conduit-street, London, W., and use their Pomade Tricophile for the cure of scurf.

A. S. E.—For your bronchitis take the following:—Chloride of ammonium, two drachms; spirits of chloroform, one drachm; simple syrup, three drachms; water, to make up six ounces. A tablespoonful to be taken in water every four hours.

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MAKESHIFT.—For the relief of the itching in your case try the following:—Carbolate of soda, a drachm and a half; glycerine, twenty-five drachms; eau de Cologne, nineteen drachms; and water, seventy-five drachms. Mix, and apply to the parts as a lotion thrice daily. Wash the parts with Vinolia Soap only.

SOBRIETY.—Try Messrs. Brand's Essence of Beef. The Essence of Beef may in your case be taken cold, in teaspoonfuls, from the tin.

C. BATESON.—Give the Nebulizer (advertised in our pages) a fair trial for your throat and ear affection. You will find full directions given along with the apparatus, which is cheap and handy.

O. P. SIDE.—Apply to Bayley, 17, Cockspur-street, London, S.W., for his Cure for Piles; and use his Pommade Divine as an application in the patient's case you name.

F. E. M.—The Medical Battery Company, 52, Oxford-street, London, W., will assist you if you make your wants known to them respecting the Zander Machines. See that you take a medical opinion on your case first of all.

J. PEARS.—Note advice regarding the "Nebulizer" given to "C. Bateson" in the present number.

BATTERS.—Give Vinolia a fair trial as an application, and use Vinolia Soap—order of your druggist.

W. D.—Continue the Cascara, and see that you give up tea and coffee, and use Scott's Oat Flour instead; and let your diet include plenty of fruits (stewed prunes and apples, &c.), with Dahl's Cakes eaten to breakfast and tea. The Cascara may be used regularly, but you must gradually make your diet suffice. A suitable tonic for your case is Inman's Syrup of the Hypophosphites—a teaspoonful twice daily in a wineglass of water after food. As regards the other symptoms, read the pamphlet recommended to "G. Sayers" in the present number, and you will find full information in its pages.

AN AFFLICTED ONE.—The so-called "worms," as fully explained in past numbers of HEALTH, are only filled-up skin-ducts. Read the article on Acne, or Blackheads, in HEALTH, No. 199, and you will find the appropriate treatment described therein. For the rest, continue to use Vinolia Soap, and apply to the parts the ointment recommended to "Ernest" in last week's number. You are suffering simply from a little skin-irritation, quite common in summer.

WHARTON LIDDALL.—We should not think the beer would do you any harm if you take it with your food. You might try alternating the beer with such a tonic claret as the "Vino Tinto" advertised in our pages. It is a tonic and blood-making wine, and very suitable for a case like yours. Give it a trial.

NORMAN.—Read the pamphlet, "A Lecture to Young Men" (post free, for 1s. 1d., from Mr. Renshaw, 356, Strand, London, W.C.), and you will find full directions therein for your treatment.

HEMI.—At your age it is impossible to prevent greyness of the hair. You should follow advice given to "Bimbi" in last week's HEALTH, and if not cured, write again.

CHRONIC DYSPEPTIC.—Exercise great care in your diet and avoid much flesh food. Take such foods in the form of Brand's Beef Essence and light soups. Rest regularly after your meals, and take five drops of Pure Terebene on a piece of sugar, after food, if you are troubled with flatulence. Eat stale bread only, avoid potatoes for a time, and be careful as to the vegetables you take. Take cocoa (Van Houten's) with milk (but no sugar) in place of tea, and for the rest, exercise your discretion as to light diet. Beware of tampering with many drugs or foods.

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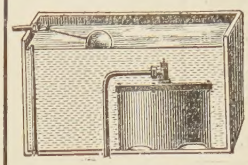

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